



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor Application of: Caidian Luo
Application No.: 10/090,060
Filing Date: March 1, 2002
Group Art Unit: 1755
Examiner: Paul D. Marcantoni
For: Fiber Reinforced Cement Composite Materials
Using Chemically Treated Fibers with Improved
Dispersibility

DECLARATION UNDER 37 CFR § 1.132

I, Caidian Luo, declare that:

1. I am a named inventor in the above-identified U.S. Application No. 10/090,060 filed March 1, 2002.
2. I, as a co-inventor, state that providing components for a building material as disclosed with the subject application for patent provide improvements to the building material.
3. A document attached as **EXHIBIT A** is a document entitled "Example: Differences in Mechanical Properties of Fiber-Cement Prototypes with Dispersant Pretreated Fiber and Direct Addition of Dispersant to Fiber-Cement Formulation" that describes pre-treating fibers in accordance with the subject invention as claimed offers superior properties to a building material as compared with a building materials made using prior art methods, in which fibers are not pretreated and a dispersant is part of an admixture.
4. I disclosed this information to the Examiner in an interview held October 19, 2005.
5. Pursuant to the evidence set forth in **EXHIBIT A**, the claimed invention is not obvious over documents cited in an Office Action mailed April 25, 2007.
6. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these

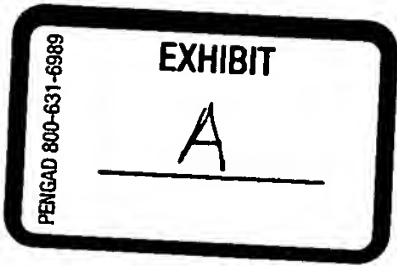
statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.


Caidian Luo

28 June 2007
Date

Example: Differences in Mechanical Properties of Fiber-Cement Prototypes with Dispersant Pretreated Fiber and Direct Addition of Dispersant to Fiber-Cement Formulation

Application		MOR (MPa)	MOE (GPa)	Ultimate Strain (um/m)	Toughness (KJ/m^3)
Addition to Formulation	Mean	2.55	0.97	3317	0.40
	St Dev	0.43	0.23	1405	0.19
Fiber Pretreatment	Mean	4.03	1.69	4100	1.04
	St Dev	0.44	0.31	1213	0.54



- 1% of **Quaternary Amine** dispersant (based on dry fiber weight) was used
- Pre-treating fiber with the dispersant significantly improved physical and mechanical properties for fiber-cement composite material, compared to directly adding the dispersant to the fiber-cement admixture